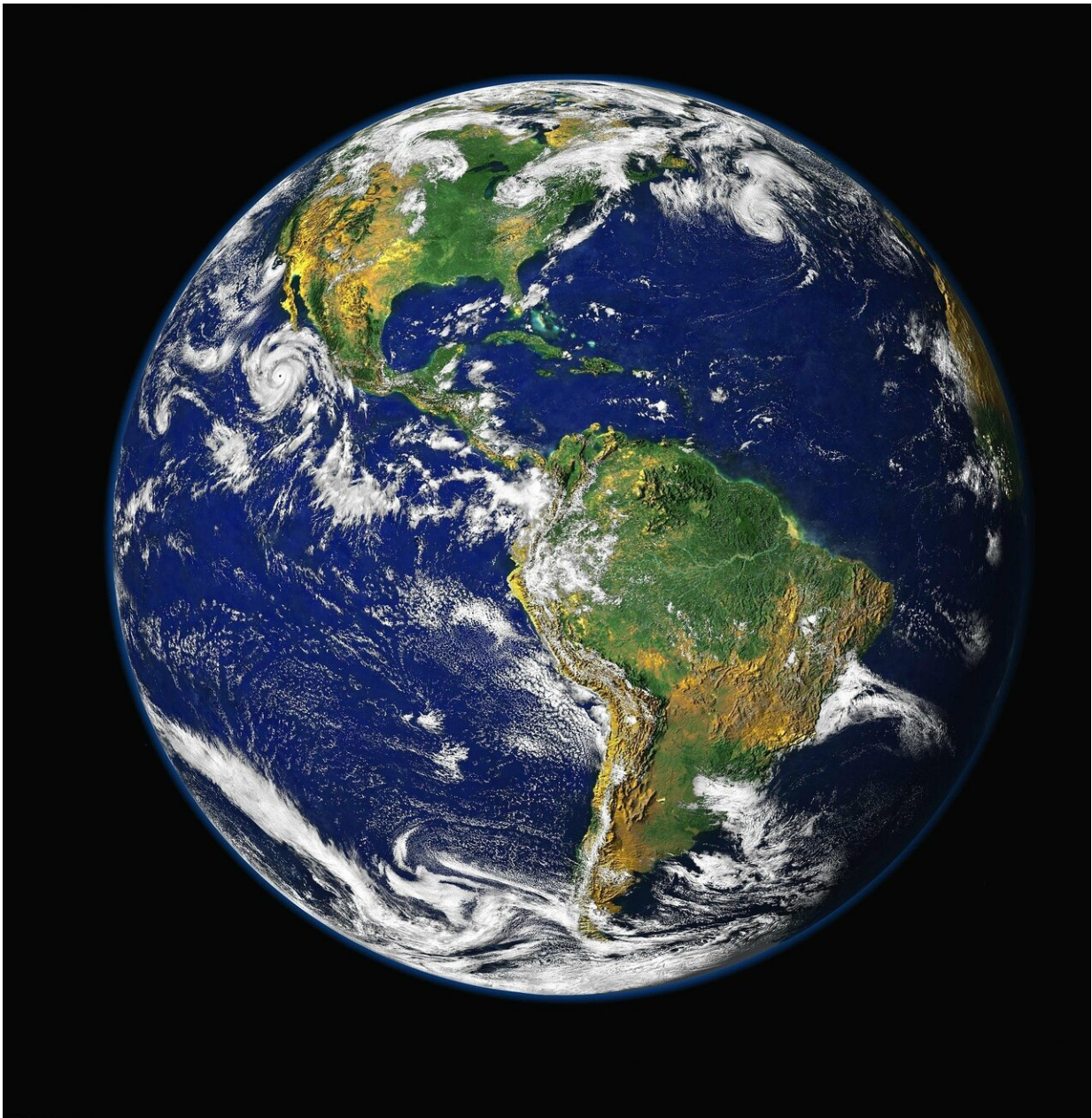


# Biden's hopes for rare earth independence at least a decade away

March 1 2021, by Joe Deaux and Stephen Lee

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The study highlights a fundamental shift in the nature of crust formation 3.75 billion years ago, which facilitated the formation of Earth's unique, stable continental crust. Credit: CC0 Public Domain

Joe Biden's ambition to make the U.S. less dependent on other nations for rare earths and minerals critical to the clean energy transition will take years to accomplish.

A review of the U.S. [critical minerals](#) and [rare earths](#) supply chain that the president ordered this week is likely to show that even with sweeping changes the nation is at least a decade from becoming self sufficient. That will mean turning to countries such as Canada, which has the the largest number of rare earth projects in the world, according to Gareth Hatch, managing director of Strategic Materials Advisors Ltd.

"There's far greater expertise in rare earths and critical minerals in Canada and Australia than there is in the U.S.," said Hatch, who is also the CEO of Innovation Metals Corp., a subsidiary of Ucore Rare Metals, which has a rare-earth project in the U.S. "But the downstream markets are in the U.S., so it's in the interest of all three countries to work together with the U.S. being the ultimate end market."

America lacks capacity to produce enough [permanent magnets](#), needed to run the engines of everything from missile guidance systems to the wind turbines and [electric cars](#) at the center of the clean energy transition. Miners say it takes so long to get federal and state environmental permits, and that the process is so unpredictable and open-ended, that they struggle to plan new mines.

## Little capacity

The U.S. has only one operational rare earths mine, with a handful of others a decade away from starting production, and the mined ore all gets sent to China for processing. This compares to China's dozens of mines and hundreds of refining and separation facilities.

"The supply-side response is always so slow compared to demand side events, so you absolutely have to start now for putting this capacity in place," Hatch said. "The red tape associated with development of new minerals or mining projects in the U.S. has been pretty significant."

The Trump administration went some way toward speeding up permitting in July 2020, when it rewrote the way agencies scrutinize projects under the National Environmental Policy Act. But Biden is expected to either undo those changes or wait on the outcome of pending litigation.

Biden's order doesn't specifically call for more domestic extraction, but lawmakers are gearing up for a fight. House Democrats say they support Biden's goal of fortifying the nation's supply chains, but not if it means more mining. Republicans counter that growing demand, especially for electric vehicles and renewable energy projects, can't be met without more mining.

To the argument that the U.S.'s reliance on imports from potentially hostile foreign nations like China creates a national security risk, Aaron Mintzes, senior policy counsel at environmental group Earthworks, counters that other nations will swiftly step up to fill any voids. That happened in 2010, when China put trade restrictions on rare [earth](#) minerals, and Australia, Indonesia, Canada, and the U.S. almost immediately opened new mines.

"Savvy investors hedge against future supply chain disruption risk," Mintzes said. "The market has priced this in."

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